

REDSTONE GATEWAY

PACKAGE 1 A- MASS GRADING AND EROSION CONTROL PACKAGE (UNSECURE AREA)

FOR THE

CITY OF HUNTSVILLE HUNTSVILLE, ALABAMA

ISSUE FOR CONSTRUCTION



LBYD, INC. PROJECT NO. 302-10-002A CITY OF HUNTSVILLE PROJECT NO. 65-10-SP21

DECEMBER 16, 2010

DRAWING INDEX

COVER SHEET

CIVIL DETAILS

CIVIL DETAILS

CIVIL DETAILS

CIVIL DETAILS

CIVIL DETAILS

SANITARY SEWER PLAN & PROFILE

SURVEY

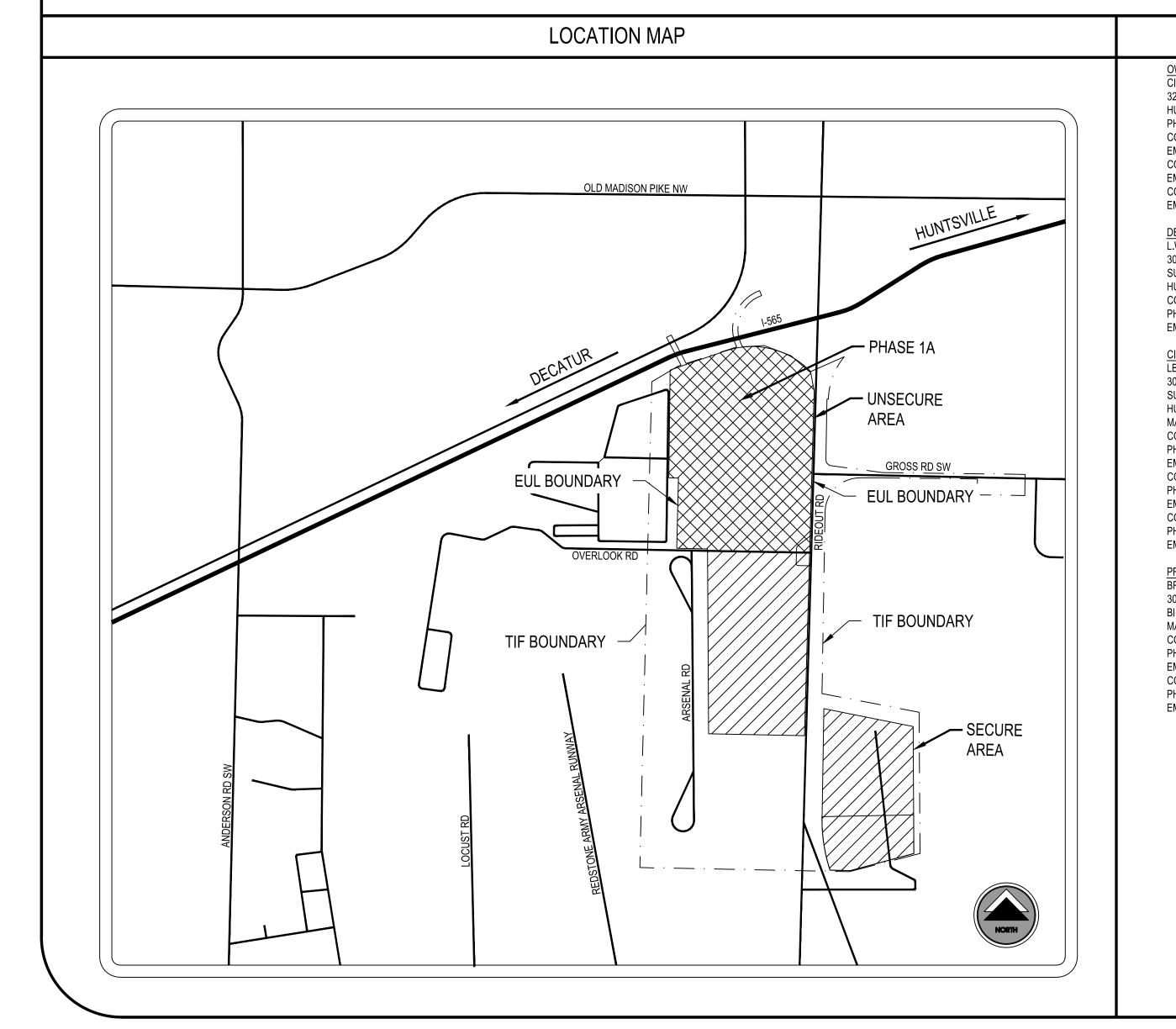
C11.5

SS2.0

SS3.0

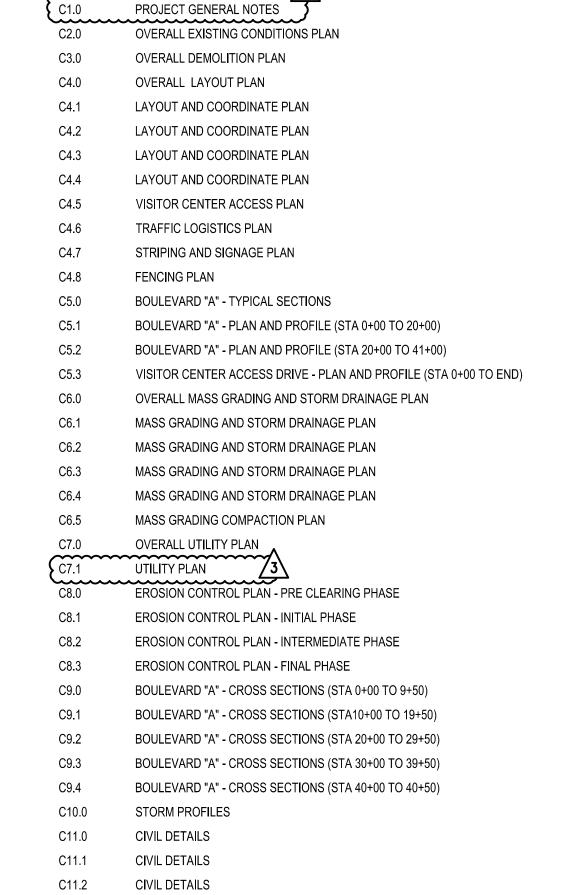
NOTE:

- FOR PLOTTING PURPOSES GRAY SHADES ARE PRESENT
- FULL SIZE 36" X 48" SHEETS



TRAFFIC CONSULTANT: SKIPPER CONSULTING, INC. OWNER: CITY OF HUNTSVILLE 320 FOUNTAIN CIRCLE 3644 VANN ROAD HUNTSVILLE, AL 35801 BIRMINGHAM, AL 35235 PHONE: (256) 427-5300 CONTACT: SHANE DAVIS, PE MAIN: (205) 655-8855 CONTACT: DARREL SKIPPER, PE EMAIL: SHANE.DAVIS@HUNTSVILLEAL.GOV CONTACT: RON ADAMS, PE EMAIL: RON.ADAMS@HUNTSVILLEAL.GOV CONTACT: CODY LONG, PE CONTACT: CHRIS MCNEESE, PE EMAIL: CODY@SKIPPERINC.COM EMAIL: CHRISTOPHER.MCNEESE@HUNTSVILLEAL.GOV GEOTECHNICAL ENGINEER: BUILDING AND EARTH SCIENCES L.W. REDSTONE, LLC. 2607 LEEMAN FERRY ROAD, 305 CHURCH STREET SW HUNTSVILLE, AL 35801 HUNTSVILLE, AL 35801 MAIN: (256) 713-0056 CONTACT: GREG HALL CONTACT: DON BROWN, PE PHONE: (443) 878-6501 PHONE: (205) 836-6300 EMAIL: GREG.HALL@COPT.COM EMAIL: DBROWN@BUILDINGANDEARTH.COM CIVIL ENGINEER: BUSBIN ENGINEERING AND SURVEYING, INC. 305 CHURCH STREET SW 924 MERIDIAN STREET N HUNTSVILLE, AL 35801 SUITE 719 HUNTSVILLE, AL 35801 MAIN: (256) 533-1099 CONTACT: CAREY BUSBIN, PE/PLS MAIN: (256) 533-1575 EMAIL: CAREYBUSBIN@BELLSOUTH.NET CONTACT: TIM ROBERTS, PE PHONE: (256) 533-1575 EMAIL: TROBERTS@LBYD.COM GREENVIEW STUDIO LANDSCAPE ARCHITECTURE CONTACT: RICK NAIL, PE PHONE: (205) 488-0238 PO BOX 260 EMAIL: RNAIL@LBYD.COM FAIRHOPE, AL 36533 PHONE: (251) 923-7367 CONTACT: BRIAN HATCHER, PE CONTACT: LOIS SHINDELBOWER, LA PHONE: (205) 488-4601 EMAIL: LOIS@GREENVIEWSTUDIO.COM EMAIL: BHATCHER@LBYD.COM DIRECTORATE OF PUBLIC WORKS BRASFIELD AND GORRIE L.L.C. 4488 MARTIN ROAD 3021 7TH AVENUE SOUTH BIRMINGHAM, AL 35233 REDSTONE ARSENAL, AL 35898 MAIN: (205) 328-4000 CONTACT: CRAIG NORTHRIDGE CONTACT: MATT KELLEY PHONE: (256) 955-8504 PHONE: (205) 714-1322 EMAIL: CRAIG.NORTHRIDGE@US.ARMY.MIL EMAIL: MKELLEY@BRASFIELDGORRIE.COM CONTACT: BRENT JONES PHONE: (205) 714-1038 EMAIL: BRJONES@BRASFIELDGORRIE.COM

PROJECT TEAM







REVISION 3 - 2/9/2011



1. LBYD, INC. SHALL NOT HAVE AUTHORITY OVER THE SITE CONTRACTOR'S WORK OR RESPONSIBILITIES. LBYD IS NOT RESPONSIBLE FOR SITE SAFETY PROCEDURES OR METHODS OF CONSTRUCTION. IT IS NOT LBYD'S DUTY TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN OR NEAR THE CONSTRUCTION SITE.

2. ALL EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND OTHER UTILITIES MAY EXIST. CONTRACTOR MUST HAVE EXISTING UTILITIES LOCATED BY UNDERGROUND LINE LOCATORS AS WELL AS FIELD VERIFIED BY ONSITE PERSONNEL BY "POT HOLING" THE UTILITY WITH POST HOLE DIGGERS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER IMMEDIATELY. 3. EXISTING UTILITIES TO REMAIN MAY BE LOCATED WITHIN PROPOSED DEMOLITION AREAS. CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING IN THESE AREAS TO ENSURE NO UTILITY SERVICE INTERRUPTIONS TO FACILITIES

THAT REMAIN OR TO ADJACENT PROPERTIES.

4. ALL EXISTING IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS SPECIFICALLY NOTED, "TO BE REMOVED". 5. CONTRACTOR SHALL COORDINATE WITH OWNER AND THE UTILITY PROVIDER PRIOR TO THE DISCONNECTING OR REMOVAL OF ANY UTILITY SERVICE. ALL UTILITIES TO BE REMOVED ARE TO BE CAPPED OR PLUGGED OR TERMINATED ACCORDING TO THE UTILITY OWNERS REQUIREMENTS.

6. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ADJACENT PROPERTIES AND IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS ON OR OFF SITE DUE TO THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. 7. WHEN CAVES OR SOLUTION CAVITIES ARE DISCOVERED DURING CONSTRUCTION, WORK SHALL STOP IN THE AREA PENDING FURTHER BIOLOGICAL AND GEOTECHNICAL INVESTIGATIONS.

8. IF DURING CONSTRUCTION THE CONTRACTOR OBSERVES HISTORIC OR ARCHAEOLOGICAL RESOURCES, THEN SUCH OBSERVATIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER. THE CONTRACTOR SHALL CEASE ALL ACTIVITIES IN THE AREA THAT MAY RESULT IN THE DESTRUCTION OF THESE RESOURCES AND SHALL PREVENT EMPLOYEES FROM TRESPASSING ON, REMOVING, OR OTHERWISE DAMAGING SUCH RESOURCES UNTIL RELEASED BY THE OWNER. 9. <u>MILITARY MUNITIONS</u> — BASED ON THE ENVIRONMENTAL ASSESSMENT THE EUL SITE HAS NOT BEEN IDENTIFIED AS HAVING THE POTENTIAL OF UNEXPLODED ORDINANCE (UXO). IN THE EVENT THAT THE CONTRACTOR DISCOVERS OR UNCOVERS MILITARY MUNITIONS AS DEFINED IN 40 CFR 260. HAZARDOUS WASTE MANAGEMENT SYSTEM HE SHALL STOP WORK IN THAT AREA

AND NOTIFY THE OWNER. 10.STORMWATER IMPACTS SHALL BE MINIMIZED DURING CONSTRUCTION WITH APPROPRIATE BMP MEASURES PER THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON <u>CONSTRUCTION SITES AND URBAN AREAS</u>. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING A PLAN FOR SECONDARY CONTAINMENT OF STORED FUEL, DRIP PANS UNDER GENERATORS AND STATIONARY VEHICLES, AND MAINTAINING SPILL MITIGATION KITS ON-SITE DURING CONSTRUCTION. 11. WASTE MATERIALS WILL BE RECYCLED TO THE MAXIMUM EXTENT FEASIBLE. 12. FENCE REMOVAL AND INSTALLATION OPERATIONS WILL BE ACCOMPLISHED SO THAT THE PERIMETER SECURITY OF THE EXISTING FACILITIES SHALL BE MAINTAINED AT ALL TIMES MEETING ANTI-TERRORISM/FORCE PROTECTION (AT/FP) REQUIREMENTS.

13. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION. NOTE THAT NOT ALL SECTIONS OF THE CITY SPECIFICATIONS WILL APPLY TO THIS PROJECT. 14. CONCRETE SHALL BE 3,000 PSI 28 DAY STRENGTH UNLESS OTHERWISE NOTED ON THE PLANS.

15. EXISTING ROADWAYS SHALL BE KEPT FREE OF MUD, SEDIMENT, DEBRIS, ETC. AND SHALL BE CLEANED ON A REGULAR BASIS — AS A MINIMUM DAILY. 16. THE CONTRACTOR SHALL BE RESPONSIBLE TO ADHERE TO THE REQUIREMENTS OF THE ENVIRONMENTAL ASSESSMENT FOR THE NORTH RIDEOUT ROAD ENHANCED USE LEASE SITE DEVELOPMENT AT REDSTONE ARSENAL, AL DATED DECEMBER 2008.

SITE DEMOLITION NOTES:

1. CONTRACTOR TO COORDINATE DEMOLITION ITEMS NOTED ON THE DRAWINGS TO BE SALVAGED, RECYCLED, AND REUSED. CONTRACTOR SHALL REMOVE THE CONCRETE AND STEEL POWER POLES TO BE SALVAGED WITH EXTREME CAUTION TO PREVENT DAMAGE AND STOCKPILE THEM IN AREA NOTED ON THE PLANS. 2. RAILROAD STONE BALLAST SHALL BE UTILIZED FOR CONSTRUCTION ENTRANCES, PROJECT MANAGER TRAILER PARKING, RELOCATED GRAVEL ROAD (WEST BOUNDARY), AND EROSION CONTROL MEASURES. 3. REFER TO SITE GRADING, DRAINAGE, AND UTILITY PLANS FOR PROPOSED UTILITY AND DRAINAGE INSTALLATION AND REMOVAL 4. REFER TO LAYOUT, GRADING, AND UTILITY PLANS FOR ADDITIONAL INFORMATION RELATING TO PAVING, CURB, SIDEWALKS, ETC. REMOVE EXISTING CURBS AS NEEDED TO INSTALL PROPOSED IMPROVEMENTS. 5. CONTRACTOR SHALL COORDINATE WITH CITY OF HUNTSVILLE (OWNER), REDSTONE ARSENAL, LBYD, THE PROJECT MANAGER, AND THE UTILITY PROVIDER PRIOR TO THE DISCONNECTING OF ANY UTILITY SERVICE. 6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, RELOCATION OR PROTECTION OF ALL ABOVE AND BELOW GROUND EXISTING IMPROVEMENTS THAT ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS UNLESS NOTED TO BE RELOCATED BY THE UTILITY SERVICE PROVIDER. 7. ALL DEMOLITION AND CONSTRUCTION DEBRIS SHALL BE RECYCLED TO THE MAXIMUM EXTENT FEASIBLE. REMAINING WASTE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE TRANSPORTED AND DISPOSED OF OFF-SITE AS REQUIRED IN A LEGAL MANNER WHILE KEEPING THE SITE CLEAN 8. ALL EXISTING PAVING, CURBS, HARDSCAPE, ETC. SHALL BE SAW CUT AT THE LIMITS OF REMOVAL IN ORDER TO PROVIDE A CLEAN EDGE. EXISTING PAVING AT EDGE SHALL BE MILLED BACK A MINIMUM OF 8" TO ENSURE SMOOTH TRANSITION. 9. ALL EXISTING TREES TO REMAIN OUTSIDE OF THE CLEARING LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. 10. DEMOLISH THE EXISTING VISITOR CENTER'S SEPTIC SYSTEM UPON COMPLETION AND CONNECTION TO THE NEW TANK. THE EXISTING TANK SHALL BE PUMPED CLEAN BY THE CONTRACTOR PRIOR TO DEMOLITION.

TVA TRANSMISSION LINE NOTES:

1. THE CONTRACTOR SHALL NOTIFY TVA. BENNY WESTMORELAND, AT (256) 851-3450 AT LEAST 48 HOURS IN ADVANCE OF WORK NEAR TVA TRANSMISSION LINES. 2. A CONDUCTOR TO GROUND CLEARANCE OF 24 FEET MUST BE MAINTAINED ON ALL FILLS. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO TVA PROPERTY AND/OR ELECTRICAL OUTAGES CAUSED BY THEIR WORK. 3. THE CONTRACTOR SHALL TAKE MEASURES TO ENSURE SAFETY OF THEIR WORKERS WHEN WORKING IN OR AROUND THE HIGH VOLTAGE TRANSMISSION LINES. THIS WORK SHALL BE PER STATE LAWS AND OSHA REQUIREMENTS FOR WORK NEAR ENERGIZED TRANSMISSION LINES. 4. ANY COUNTERPOISE THAT IS UNCOVERED OR DAMAGED SHALL BE REPAIRED/REBURIED IMMEDIATELY BY THE CONTRACTOR AT NO EXPENSE TO THE 5. TVA HAS THE RIGHT FOR INGRESS AND EGRESS THROUGH THE CONSTRUCTION SITE FOR MAINTENANCE ON THEIR LINES. THE CONTRACTOR

11. BACKFILLING OF DEMOLISHED ITEMS SHALL BE SUITABLE FILL OR STONE

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND PUMPING

PER THE PROJECT SPECIFICATIONS SECTION 02300 EARTHWORK.

SHALL WORK WITH TVA TO ENSURE ACCESS TO THEIR FACILITIES

AS NECESSARY FOR EROSION CONTROL FOR OWN SCOPE OF WORK.

LAYOUT NOTES:

EXPENSE.

1. CONTRACTOR SHALL VERIFY SITE BOUNDARY AND EXISTING TOPOGRAPHY. NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO SUBMITTING PRICES OR ORDERING MATERIALS 2. THE OWNER WILL BE RESPONSIBLE FOR PROVIDING BENCHMARKS, CONTROLS, AND FINAL ELECTRONIC AS-BUILT DRAWINGS. 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL BENCHMARKS AND PROPERTY CORNERS. ANY REPLACEMENT WILL BE AT THE CONTRACTOR'S

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND A "RED-LINED" SET OF CLEAN CONSTRUCTION DOCUMENTS TO SERVE AS THE CONTRACTOR'S AS-BUILTS FOR OWN SCOPE OF WORK. 5. ALL DIMENSIONS AND COORDINATES SHOWN ARE TO THE OUTSIDE EDGE OF FUTURE BUILDINGS, TO THE BACK OF CURB, OR TO THE EDGE OF SURFACING UNLESS OTHERWISE NOTED. 6. ALL TEMPORARY STRIPING TO BE PER THE LATEST EDITION OF THE MUTCD

UNLESS NOTED OTHERWISE. 7. ALL PERMANENT STRIPING SHALL BE THERMOPLASTIC PER CITY OF HUNTSVILLE STANDARDS SPECIFICATION SECTION 701. 8. BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY THE OWNER AND PERFORMED BY BUSBIN ENGINEERING. 9. TOPOGRAPHIC INFORMATION WAS PERFORMED VIA GROUND RUN AND AERIAL

TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST EDITION AND REVISION OF PART VI OF THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE APPROVED TRAFFIC CONTROL PLAN FOR ALL CONSTRUCTION WITHIN WORK AREAS SHOWN AND DESCRIBED IN PART VI OF THE MUTCD. 2. ACCESS TO THE VISITOR'S CENTER SHALL BE MAINTAINED AT ALL TIMES AND SHALL MEET THE REQUIREMENTS OF REDSTONE ARSENAL. SEE SHEET C4.5 AND C4.6. 3. TRAFFIC CONTROL AND ACCESS SHALL TAKE INTO CONSIDERATION BASE SECURITY MEASURES. 4. PERMANENT ROADWAY SIGNS OR TEMPORARY CONSTRUCTION SIGNS WHICH ARE NOT APPLICABLE OR INAPPROPRIATE FOR THE CURRENT CONDITIONS SHALL BE COVERED OR REMOVED. 5. THE DIMENSIONS SHOWN OR DESCRIBED FOR LOCATING CONSTRUCTION SIGNS

ARE NOMINAL. THE ACTUAL DIMENSIONS SHALL BE ADJUSTED TO BEST FIT LOCAL CONDITIONS AND PROVIDE MAXIMUM VISIBILITY. 6. IF TRAFFIC CONTROL DEVICES ARE NECESSARY FOR PROPER WARNING AND TRAFFIC CONTROL AFTER SUNSET, THEN AS A MINIMUM, TYPE "B" WARNING LIGHTS SHALL BE PLACED ON THE FIRST WARNING SIGN AND CHANNELIZING DRUM AND TYPE "A" REFLECTIVE SHEETING SHALL BE REQUIRED ON ALL SIGNS. 7. HAZARDOUS CONDITIONS ON OPEN ROADWAYS SUCH AS PAVEMENT DROP-OFFS IN EXCESS OF 2"; CONSTRUCTION MATERIALS, VEHICLES, OR EQUIPMENT STORED OR PLACED WITHIN THE ROADWAY RIGHT-OF-WAY; AND OPEN TRENCHES ACROSS OR NEAR THE ROADWAY SHALL NOT BE ALLOWED UNLESS THE CONTRACTOR IS ON SITE AND WORKING, AND PROPER TRAFFIC CONTROL MEASURES ARE BEING TAKEN- INCLUDING BARRICADES. 8. THE CONTRACTOR SHALL KEEP OPEN ROADWAYS CLEAN AND FREE OF CONSTRUCTION DEBRIS, DIRT, LOOSE GRAVEL OR OTHER MATERIAL THAT MAY CAUSE HAZARDOUS DRIVING CONDITIONS. 9. TRAFFIC CONTROL DEVICES SHALL MEET THE STANDARD MATERIAL AND

INSTALLATION REQUIREMENTS SPECIFIED IN THE CURRENT EDITION OF THE AL.D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. 10. ROADWAYS AND DRIVEWAYS SHALL REMAIN OPEN DURING CONSTRUCTION. CHANNELIZING DEVICES SHALL BE PLACED AT 10' ON CENTER ALONG MINIMUM 20' RADII TO CHANNELIZE TRAFFIC INTO AND OUT OF INTERSECTING ROAD AND DRIVES WITHIN AREAS WHERE CHANNELIZING DEVICES ARE REQUIRED. TEMPORARY REGULATORY SIGNS SUCH AS STOP SIGNS AND YIELD SIGNS SHALL BE PLACED AS NECESSARY FOR PROPER TRAFFIC CONTROL IN ACCORDANCE WITH THE MUTCD.

11. CONTRACTOR SHALL UTILIZE FLAGMEN AND SIGNAGE AS NEEDED TO ASSURE SAFE ACCESS TO AND FROM THE VISITOR'S CENTER. 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SITE CONSTRUCTION TRAFFIC CONTROL PLAN TO BE APPROVED BY THE CITY OF HUNTSVILLE AND REDSTONE ARSENAL PRIOR TO CONSTRUCTION. THE SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL TAKE INTO ACCOUNT THE ENTERING AND EXITING OF CONSTRUCTION TRAFFIC ONTO THE ROADWAY AND THE IMPACT TO THE FLOW OF TRAFFIC. THIS PLAN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. THIS SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL BE IN ADDITION TO ANY TRAFFIC LOGISTICS AND VISITOR CENTER ACCESS PLANS PROVIDED IN THIS PLAN SET FOR ROADWAY

IMPROVEMENTS. 13. CONTRACTOR SHALL PHASE TRAFFIC CONTROL PLAN AS NEEDED TO ALLOW CONTINUOUS ACCESS TO THE EXISTING VISITOR CENTER AND AS NEEDED TO PROTECT THE WORKERS AND TRAVELING PUBLIC. 14. EXISTING ROADWAYS SHALL BE KEPT FREE OF MUD, SEDIMENT, DEBRIS, ETC. AND SHALL BE CLEANED ON A REGULAR BASIS — AS A MINIMUM DAILY.

GRADING NOTES:

1. THE OWNER WILL BE RESPONSIBLE FOR PROVIDING ITS COMPACTION TESTING. ADDITIONAL COMPACTION TESTING MAYBE REQUIRED AND WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. 2. ALL TOPSOIL SHALL BE STRIPPED WITHIN THE PROPOSED LIMITS OF GRADING AND SHALL BE STOCKPILED ON-SITE IN AN APPROVED LOCATION FOR LATER USE DURING THIS PACKAGE TO RE-PLATE SLOPES AND PAD AREAS AS

INDICATED ON THE PLANS. 3. SUBGRADE SHALL BE PROOF ROLLED WITH A LOADED DUMP TRUCK AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL. ANY AREAS SHOWING SIGNS OF PUMPING, RUTTING, OR ANY UNSUITABLE (ORGANIC, SOFT, WET, LOOSE) MATERIAL FOUND IN PLACE SHALL BE UNDERCUT AND REPLACED, OR MOISTURE CONDITIONED AND COMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW.

4. ALL EXPOSED SUBGRADE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 12" AND RECOMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW AND IN THE PROJECT SPECIFICATIONS. 5. THE PROJECT IS UNCLASSIFIED TO -12" BELOW SUBGRADE ELEVATION IN ROADWAY CUT AREAS AND 36" BELOW SUBGRADE ELEVATION IN FUTURE BUILDING PAD CUT AREAS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE SUBGRADE AFTER IT HAS BEEN INITIALLY PREPPED, IF DAMAGED DUE TO INCLEMENT WEATHER OR CONSTRUCTION TRAFFIC. 7. FILL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES: VIRTUALLY FREE

OF ORGANICS, NO ROCK FRAGMENTS GREATER THAN 4" WITHIN 4' OF FINISH GRADE, LIQUID LIMIT NOT EXCEEDING 50, PLASTICITY INDEX NOT EXCEEDING 30, MINIMUM STANDARD PROCTOR (ASTM D-698) OF 100 PCF, COMPACTED TO 98% IN PAVED AND MASS GRADED AREAS, PLACED IN 8" TO 10" THICK LOOSE LIFTS, AND WITHIN $\pm 2.0\%$ OF OPTIMUM MOISTURE CONTENT. MASS GRADED AREAS INCLUDE ALL AREAS OUTSIDE OF THE ROADWAYS. NOTE THAT SOILS WITHIN 3' OF THE FUTURE BUILDING FINISH FLOOR SUBGRADE ELEVATIONS AND WITHIN 1 OF PAVED AREAS SHALL BE CL/CH SOILS AND HAVE A MAXIMUM LIQUID LIMIT NOT EXCEEDING 50, AND A MAXIMUM PLASTICITY INDEX NOT EXCEEDING 30, COMPACTED TO 98% AND WITHIN $\pm 2.0\%$ OF OPTIMUM MOISTURE CONTENT. REFER TO SPECIFICATION SECTION 02300 EARTHWORK FOR ADDITIONAL

INFORMATION. 8. COMPACTION TESTS WILL BE TAKEN AT THE RECOMMENDATION OF THE ON-SITE GEOTECHNICAL ENGINEER, BUT AT A MINIMUM EVERY 2,500 SQUARE FEET OF AREA PER 8" LIFT IN BUILDING PAD AREAS, EVERY 5,000 SQUARE FEET OF AREA PER 8" LIFT IN PAVING AREAS, AND EVERY 10,000 SQUARE

FEET OF AREA PER 8" LIFT IN MASS GRADED AREAS. 9. COMPACTION WITHIN LIMITED SPACES (I.E. MANHOLES, INLETS, UTILITY TRENCHES) SHOULD BE BACKFILLED AND COMPACTED SYSTEMATICALLY, AT THE DIRECTION OF THE OWNER'S ONSITE REPRESENTATIVE. STONE BACKFILL SHALL BE INSTALLED IN 8" LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR PER CITY OF HUNTSVILLE STANDARD SPECIFICATIONS SECTION 105 AND 107 AS MODIFIED IN THE SUPPLEMENT TO GENERAL REQUIREMENTS. 10. CLEARING LIMITS SHALL BE 5' OUTSIDE OF ALL PROPOSED GRADED AREAS OR NOT BEYOND THE PROPERTY LINES OR CLEARING LIMITS WHICHEVER IS

11. NO GRADING OFF-SITE OR IN ANY ROAD RIGHT-OF-WAY WITHOUT PROPER APPROVALS AND PRIOR NOTIFICATION. 12. COORDINATE THE SEQUENCING OF ALL GRADING OPERATIONS WITH THE EROSION CONTROL PLAN. 13. PROPOSED GRADES INDICATED ON THIS PLAN ARE TO FINISH GRADE. THE CONTRACTOR SHALL MAKE SUBGRADE ADJUSTMENTS FOR TOPSOIL, PAVING, ETC.

14. FILL SLOPES SHOULD BE BENCHED INTO THE EXISTING SLOPES AND SHOULD BE COORDINATED WITH THE OWNER FOR DEPTH OF BENCH INTO THE SLOPE. 15. A GEOTECHNICAL REPORT HAS BEEN PREPARED BY BUILDING AND EARTH SCIENCES, INC. PROJECT NUMBER HV10019 AND IS AVAILABLE FOR INFORMATIONAL PURPOSES. THE CONTRACTOR SHALL REVIEW THIS REPORT,

VISIT THE SITE AND OBSERVE THE ADDITIONAL EXPLORATION PROVIDED BY THE OWNER AFTER THE PRE-BID MEETING IN ORDER FOR THE CONTRACTOR TO PROVIDE A RESPONSIVE BID. 16. UNSUITABLE MATERIAL REFERS TO MATERIAL THAT IS NOT SUITABLE FOR BUILDING, PAVEMENT OR PONDS SUPPORT FOR REASONS ASSOCIATED WITH MATERIAL PROPERTIES, SUCH AS HIGHLY PLASTIC SOILS, "FAT" CLAYS, ORGANICS, AND OLD FILL. MATERIAL WHICH IS OTHERWISE SUITABLE, BUT ABOVE THE OPTIMUM MOISTURE AND REQUIRES MOISTURE CONDITIONING PRIOR TO USE AS STRUCTURAL FILL SHALL NOT BE CONSIDERED AS "UNSUITABLE". NOTE ADDITIVE AND DEDUCTIVE UNIT PRICES ARE BEING PROVIDED TO HANDLE CHANGING FIELD CONDITIONS DURING CONSTRUCTION AS NEEDED. 17. DEWATERING SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION. REROUTE SURFACE WATER RUNOFF AWAY FROM EXCAVATED AREAS. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. DO NOT USE EXCAVATED TRENCHES AS TEMPORARY DRAINAGE DITCHES. INSTALL A DEWATERING SYSTEM TO KEEP SUBGRADES DRY AND CONVEY GROUND WATER AWAY FROM EXCAVATIONS. MAINTAIN UNTIL DEWATERING IS NO LONGER REQUIRED. IF

GROUNDWATER DEWATERING IS REQUIRED, CONTRACTOR IS TO OBTAIN ANY

PERMITS AS MAY BE REQUIRED PRIOR TO DISCHARGE OF EFFLUENT FROM

DEWATERING.

STORM DRAINAGE NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL STORM PIPE MATERIALS TO THE OWNER AND RECEIVE APPROVAL PRIOR TO INSTALLATION AND/OR FABRICATION.

2. ALL PROPOSED STORM INLETS (GRATES, CURB, YARD, AREA DRAINS) ARE TO BE LOCATED AT THE LOW POINTS. GRADING SHALL BE TO DIRECT RUNOFF TO THESE INLETS. NOTIFY THE OWNER OF ANY DISCREPANCIES. 3. STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY THE OWNER OF ANY DISCREPANCIES. 4. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED STORM PIPE GRADES AND POINTS OF CONNECTION PRIOR TO INSTALLATION. THE OWNER SHALL BE NOTIFIED OF ANY DEVIATIONS PRIOR TO OR DURING CONSTRUCTION. 5. PROPOSED STORM PIPES SHALL BE BEDDED IN 4" OF CRUSHED AGGREGATE PER CITY OF HUNTSVILLE DR-166.

STORM PIPES LOCATED IN PAVED AREAS AND 5' BEYOND THE BACK OF CURB SHALL BE BACKFILLED WITH #78 STONE UP TO SUBGRADE ELEVATION PER CITY OF HUNTSVILLE DR-166. 6. ALL RIP RAP SHALL BE CLASS 2 PER THE ALABAMA DEPT. OF TRANSPORTATION (ALDOT) STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.

POLYETHYLENE (HDPE) WITH WATER-TIGHT JOINTS UNLESS OTHERWISE NOTED. INSTALLED PER MANUFACTURERS RECOMMENDATIONS. 8. ALL STORM PIPES 18" AND GREATER SHALL BE CLASS 3 REINFORCED CONCRETE PIPE (RCP) PER CITY OF HUNTSVILLE STANDARD SPECIFICATIONS SECTION 527 AS MODIFIED IN SECTION 01000. 9. ALL STORM MANHOLES SHALL BE APPROVED CONE, RISER, AND BASE SECTIONS WITH GASKETED JOINTS MEETING ALDOT SPECIAL DRAWING # MH-621-2 WITH CITY OF HUNTSVILLE RING AND COVER PER DR-129. 10. ALL SLOPE PAVED HEADWALLS SHALL BE PER CITY OF HUNTSVILLE

7. ALL HDPE STORM PIPES SHALL BE SMOOTH LINED HIGH DENSITY

DR-152A THROUGH DR-152D. 11. CONCRETE BOX CULVERTS SHALL MEET ALDOT SPECIAL DRAWING # PCC-524 AND THE CITY OF HUNTSVILLE STANDARD SPECIFICATIONS SECTION 527 AS MODIFIED IN THE SUPPLEMENT TO GENERAL REQUIREMENTS. CULVERTS MAY BE EITHER PRE-CAST OR CAST-IN-PLACE TYPE CONSTRUCTION MEETING THE ABOVE REQUIREMENTS.

12. ALL SINGLE AND DOUBLE WING CURB INLETS SHALL BE PER CITY OF HUNTSVILLE DR-120A THROUGH DR-120C. 13. ALL YARD INLETS SHALL BE PRECAST INLET BOXES 3-1" x 3-1" OR 4'-2" x 4'-2" DEPENDING ON MAXIMUM PIPE DEFLECTIONS, YARD INLET TOP TO BE PRECAST WITH A RING AND COVER ACCESS PROVIDED THROUGH THE

14. CONTRACTOR TO PROVIDE "RED-LINED" AS-BUILT DRAWINGS ON STORM PIPING AND STORMWATER DETENTION.

EROSION CONTROL NOTES:

1. SITE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS. 2. LW REDSTONE, LLC HAS OBTAINED A "NOTICE OF REGISTRATION"(NOR) FROM ADEM #ALR16EFJM (EXPIRES 8/23/2011). THE OWNER SHALL BE RESPONSIBLE FOR ALL ADEM REQUIRED MONITORING, INSPECTIONS, ETC. TO ENSURE THAT THE SITE IS AT ALL TIMES IN ACCORDANCE WITH ADEM RULES & REGULATIONS. DAILY DOCUMENTATION OF INSPECTIONS BY A Q.C.I. OR Q.C.P. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND MAINTAINED BY THE CONTRACTOR ON-SITE AND PROVIDED TO THE OWNER AT HIS/HER REQUEST. ANY AND ALL FEES, FINES, ETC., SHALL BE THE RESPONSIBILITY OF THE

3. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING THE CONSTRUCTION PROCESS AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND

SHALL BE AT NO ADDITIONAL COST TO THE OWNER 4. EROSION CONTROL DEVICES SHOWN ON THESE PLANS ARE A MINIMUM. ADDITIONAL DEVICES SHALL BE INSTALLED AS REQUIRED TO PREVENT SILTATION, EROSION AND OTHER DEGRADATION OR POLLUTION TO THE SITE OR ADJACENT PROPERTIES, STREAMS, DITCHES, AND PUBLIC ROADWAYS. 5. EROSION CONTROL DEVICES SHALL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING DEVICES: SILT FENCING, BRUSH BERMS, SEDIMENT BASINS. DETENTION PONDS, STRAW WATTLES, CHECK DAMS, FILTER BERMS, JUTE

MATTING, VEGETATIVE FILTER STRIPS, TURF REINFORCEMENT MAT, DIVERSION

BERMS, POLYACRYLAMIDE, FLOC BLOCKS, ETC. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES IN GOOD OPERATING CONDITION DURING ALL LAND DISTURBING ACTIVITIES. THIS RESPONSIBILITY SHALL INCLUDE THE CLEANUP AND/OR REPAIRS TO THE DEVICES AT NO ADDITIONAL COST TO THE OWNER. 7. EROSION CONTROL DEVICES SHALL BE MONITORED AND MAINTAINED UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED AND AFTER EACH RAINFALL GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD, ANY WIND GUSTS GREATER THAN 25 MPH, AND ANY SUSTAINED WINDS GREATER THAN 20 MPH IN A 24

HOUR PERIOD. 8. AFTER ALL LAND DISTURBANCE ACTIVITIES HAVE CEASED AND AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED, THE EROSION CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND THE AREA CLEANED AND DRESSED FOR EACH CONTRACTOR'S WORK AREA. 9. DEWATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THEIR SCOPE OF WORK. DEWATERING OPERATIONS MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE OR POLLUTION TO ADJACENT PROPERTIES, STREAMS, DITCHES, OR PUBLIC ROADWAYS.

10. A GRAVELED ACCESS DRIVE SHALL BE AT EACH SITE ENTRANCE/EXIT TO PREVENT TRACKING OF DIRT AND SEDIMENT ONTO PUBLIC OR PRIVAIL ROADWAYS. IF SEDIMENT REACHES THE ROADWAY, THEN IT MUST BE CLEANED AT THE END OF EACH WORKDAY

11. ALL LAND DISTURBANCE ACTIVITIES SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE EXPOSURE OF BARE AREAS AT ANY ONE TIME. 12. ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN 13 DAYS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ALDOT SPECIFICATIONS SECTION 652 AND 656 AND CITY OF HUNTSVILLE STANDARD SPECIFICATIONS SECTION 653 AND 659.

13. ALL GRADED AREAS SHALL RECEIVE A MINIMUM OF 4 INCHES OF TOPSOIL AND PERMANENT GRASSING UNLESS OTHERWISE INDICATED. 14. PRIOR TO SITE CLEARING, ALL PERIMETER SILT FENCING, BRUSH BERMS, ETC. AND GRAVELED ACCESS DRIVES SHALL BE INSTALLED. THE OWNER WILL INSPECT AND APPROVE THE INSTALLATION OF THESE MEASURES PRIOR TO RELEASING SITE WORK CONSTRUCTION. 15. ALL EXISTING STREAMS, DITCHES, ETC. SHALL BE PROTECTED FROM

SEDIMENTS AND SILTS BY SILT FENCING, WATTLES. BRUSH BERMS, ETC. 16. WATTLES OR SILT FENCING SHALL BE INSTALLED AT ALL INLETS UPON THE COMPLETION OF EACH INLET AS INSTALLED. 17. RIP RAP SHALL BE PLACED AT EACH HEADWALL IMMEDIATELY FOLLOWING CONSTRUCTION OF EACH HEADWALL.

SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. 19. GEOTEXTILE SHALL BE PLACED ON ALL 3:1 SIDE SLOPES. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN S150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE

18. GEOTEXTILE SHALL BE PLACED ON ALL 2:1 SIDE SLOPES. GEOTEXTILE

MANUFACTURER'S RECOMMENDATIONS 20. GEOTEXTILE SHALL BE PLACED ON ALL DITCH BOTTOMS & TO THE TOP OF SLOPE ON EACH SIDE. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

21. GEOTEXTILE IS NOT REQUIRED ON 4:1 AND FLATTER SLOPES.

UTILITY NOTES:

1. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO ANY UTILITY BEING DEMOLITION REGARDING ITEMS TO BE SALVAGED, RECYCLED, AND REUSED. CONTRACTOR SHALL REMOVE ITEMS TO BE SALVAGED WITH EXTREME CAUTION TO PREVENT DAMAGE. CONTRACTOR SHALL TURN ALL SALVAGED UTILITY ITEMS OVER TO OWNER. 2. UTILITY TRENCHES SHALL BE BACKFILLED WITH COMPACTED FILL PLACED IN 8" LOOSE LIFTS. FILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR AND OPTIMUM MOISTURE CONTENT WITHIN ±2.0% PER CITY OF HUNTSVILLE STANDARD SPECIFICATIONS SECTION 105 AND 107 AS MODIFIED IN SECTION 01000. 3. WHEN INSTALLING UTILITIES IN EXISTING PAVED AREAS, ROADWAYS, OR IN AREAS WHERE SOILS ARE CONSIDERED UNSUITABLE FOR BEDDING OR BACKFILLING, UTILITY TRENCHES SHALL BE BACKFILLED FULL DEPTH WITH #78 STONE PER CITY OF HUNTSVILLE DR-166. 4. THE OWNER SHALL BE RESPONSIBLE FOR PUMPING THE SEPTIC TANK AT THE VISITOR'S CENTER FOR THE DURATION OF THE PROJECT. PUMPING SHALL

START ONCE THE NEW TANK HAS BEEN INSTALLED AND PRIOR TO THE

DEMOLITION OF THE EXISTING TANK AND FIELD LINE SYSTEM.

1. ALL GRAVITY SANITARY SEWER MAIN CONSTRUCTION SHALL BE PER THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT "DESIGN AND ACCEPTANCE MANUAL FOR SANITARY SEWERS" DATE MOVEMBER 2005 2. THE INTENT OF THE DRAWINGS IS THAT THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND TRANSPORTATION NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH THE

OPERATION BY THE OWNER. 3. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL GRAVITY SANITARY SEWER MATERIALS TO THE OWNER AND RECEIVE APPROVAL PRIOR TO

4. EFFORTS HAVE BEEN MADE TO INDICATE LOCATIONS OF EXISTING AND/OR THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXACT MEASUREMENTS OPERATIONS. ANY EXISTING STRUCTURE, PIPING OR UTILITY DISTURBED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER THE OWNER OF ANY FACILITY IS THE TOTAL RESPONSIBILITY OF THE

5. EXISTING GRADING AND DRAINAGE ELEVATIONS SHALL BE MAINTAINED AFTER CONSTRUCTION UNLESS OTHERWISE SHOWN ON PLANS. 6. ALL BURIED PIPES SHALL HAVE A MINIMUM OF 3'-0" COVER AS MEASURED

7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WORK ALL APPLICABLE DRAWINGS AND THE APPROPRIATE SPECIFICATIONS AS A UNIT. ANY OMISSIONS, DELETIONS, OR CONFLICTS ARISING AS A RESULT OF FAILURE TO INCORPORATE ALL DRAWINGS AND SPECIFICATIONS THAT APPLY SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND/OR ENGINEER. 8. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR TVI, VACUUM TESTING MANHOLES AND AIR TESTING SEWER LINES. A 72-HOUR NOTICE IS REQUIRED PRIOR TO TESTING. REPRESENTATIVES FROM BOTH THE CITY ENGINEERING OFFICE AND WATER POLLUTION CONTROL SHALL BE PRESENT TO

9. THE CONTRACTOR SHALL PROVIDE THE CITY ENGINEER WITH A COMPLETE SET

12. SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS DURING

13. CONTRACTOR SHALL MAINTAIN A 15' MINIMUM EXCAVATION CLEARANCE AT ALL TRANSMISSION LINES TOWER SUPPORTS AND DOWN GUY ANCHORS. 14. CONTRACTOR SHALL COORDINATE IN ADVANCE AND DURING CONSTRUCTION $\stackrel{\prime}{\sim}$ Operations with the owner of any fiber optic communication cables in THE AREAS WHERE THESE UTILITIES MAY EXIST.

15. TRAFFIC CONTROL SHALL BE MAINTAINED PER THE "MANUAL ON UNIFORM

<u>GRAVITY SANITARY SEWER NOTES:</u>

CONTRACT DOCUMENTS AND ALL INCIDENTAL WORK NECESSARY TO COMPLETE THE PROJECT IN AN ACCEPTABLE MANNER, READY FOR USE, OCCUPANCY OR

INSTALLATION AND/OR FABRICATION.

PLANNED STRUCTURES, PIPING, UTILITIES, AND TOPOGRAPHY. HOWEVER, IT IS AND LOCATIONS OF ALL EXISTING ITEMS BEFORE INITIATING ANY CONSTRUCTION DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION OPERATIONS SHALL BE AND/OR ENGINEER. SUFFICIENT ADVANCE COORDINATION OF DISRUPTION WITH

VERTICALLY FROM FINISHED GRADE TO THE TOP OF PIPE, UNLESS OTHERWISE NOTED.

VERIFY TESTING RESULTS.

OF RECORD DRAWINGS (AS-BUILTS) IN DIGITAL MICROSTATION (.DGN) AND HARDCOPY FORMAT, AND THE CONTRACTOR/INSPECTOR RED-LINED DRAWINGS UPON COMPLETION OF CONSTRUCTION. DRAWINGS SHALL BE REFERENCED TO ALABAMA STATE PLANE COORDINATE SYSTEM, NAD83 ALABAMA EAST ZONE AS DESCRIBED IN THE "CODE OF ALABAMA" (1975), SECTION 35-2-1. SURVEYS SHALL BE TIED TO A MINIMUM OF TWO ACCEPTED GPS MONUMENTS OR ONE GPS TIE POINT PLUS AN ASTRONOMIC OBSERVATION TO DETERMINE GRID NORTH. A LAND SURVEYOR LICENSED IN THE STATE OF ALABAMA SHALL COMPLETE THE SURVEY. IN ADDITION, THE RECORD DRAWINGS SHALL SHOW FINAL VERTICAL AND HORIZONTAL ALIGNMENT OF ALL BURIED UTILITIES ADDED OR MOVED AS A RESULT OF CONSTRUCTION. THEY SHALL INCLUDE ACTUAL FIELD ANGLES BETWEEN LINES, ALL SERVICE LINES AND TEE LOCATIONS, ALL VALVE VAULTS AND VALVE BOXES, STUBOUTS, AND LINES, AND SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES FROM THE DESIGN DRAWINGS MADE DURING CONSTRUCTION. RECORD DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS BEING MADE THERETO.

10. THE ENGINEER WILL PROVIDE GEOTECHNICAL INFORMATION SUCH AS BORINGS, SOIL TESTS, ETC UPON WRITTEN REQUEST. 11. ALL CONCRETE, ASPHALT DRIVEWAYS AND OTHER ROAD ACCESSES, SHALL BE SAWCUT AND REPAIRED IN AS GOOD OR BETTER CONDITION AS BEFORE CONSTRUCTION. PROPERTY OWNERS SHALL HAVE ACCESS TO PROPERTY AT ALL TIMES DURING CONSTRUCTION.

CONSTRUCTION.

TRAFFIC CONTROL DEVICES", LATEST REVISION. 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH NPDES STORMWATER PERMITS DURING ENTIRE CONSTRUCTING PERIOD. A COPY OF THE ADEM PERMIT SHALL MAINTAINED ON SITE AL ALL TIMES.

PROJECT CONTROL POINTS (NE)

NAME	GRID NORTH	GRID EAST	ELEVATION	DESCRIPTION	LOCATION
AHD-16	1,530,461.19	404,038.30	655.94	ALDOT HIGHWAY MONUMENT NO. 17	I-565 R.O.W. 275' WEST OF CL RIDEOUT ROAD
AHD-17	1,530,739.43	403,720.37	662.68	ALDOT HIGHWAY MONUMENT NO. 16	I-565 R.O.W. 600' WEST OF CL RIDEOUT ROAD
TP-1	1,528,778.40	404,155.65	638.64	MAG NAIL & GALVANIZED SHINER	177' NORTH OF CL GOSS ROAD & 113' WEST OF CL RIDEOUT ROAD
TP-2	1,529,198.25	404,178.52	640.82	MAG NAIL & GALVANIZED SHINER	600' NORTH OF CL GOSS ROAD & 113' WEST OF CL RIDEOUT ROAD

ALABAMA EAST ZONE

NAVD 88, USING 731.8 AS ELEVATION

CONTROL: GTAC. PID DG5771 NAV (83) CORS $-34^{\circ}42'39.82619(N) - 086^{\circ}39'12.28546(W)$ 5

S

S

LBYD

Civil and Structura

Engineers Atlanta, Georgia

Birmingham, Alabama

Huntsville, Alabama

www.lbyd.com

302-10-002A

LBYD, Inc.

305 Church Street SW

Huntsville, AL 35801

Fax (256) 533-1744

nese drawings and design intent a ole property of the City of Huntsville which may be reproduced without written permiss

ABAMMIN ABAMMIN

No. 26754

2/9/201

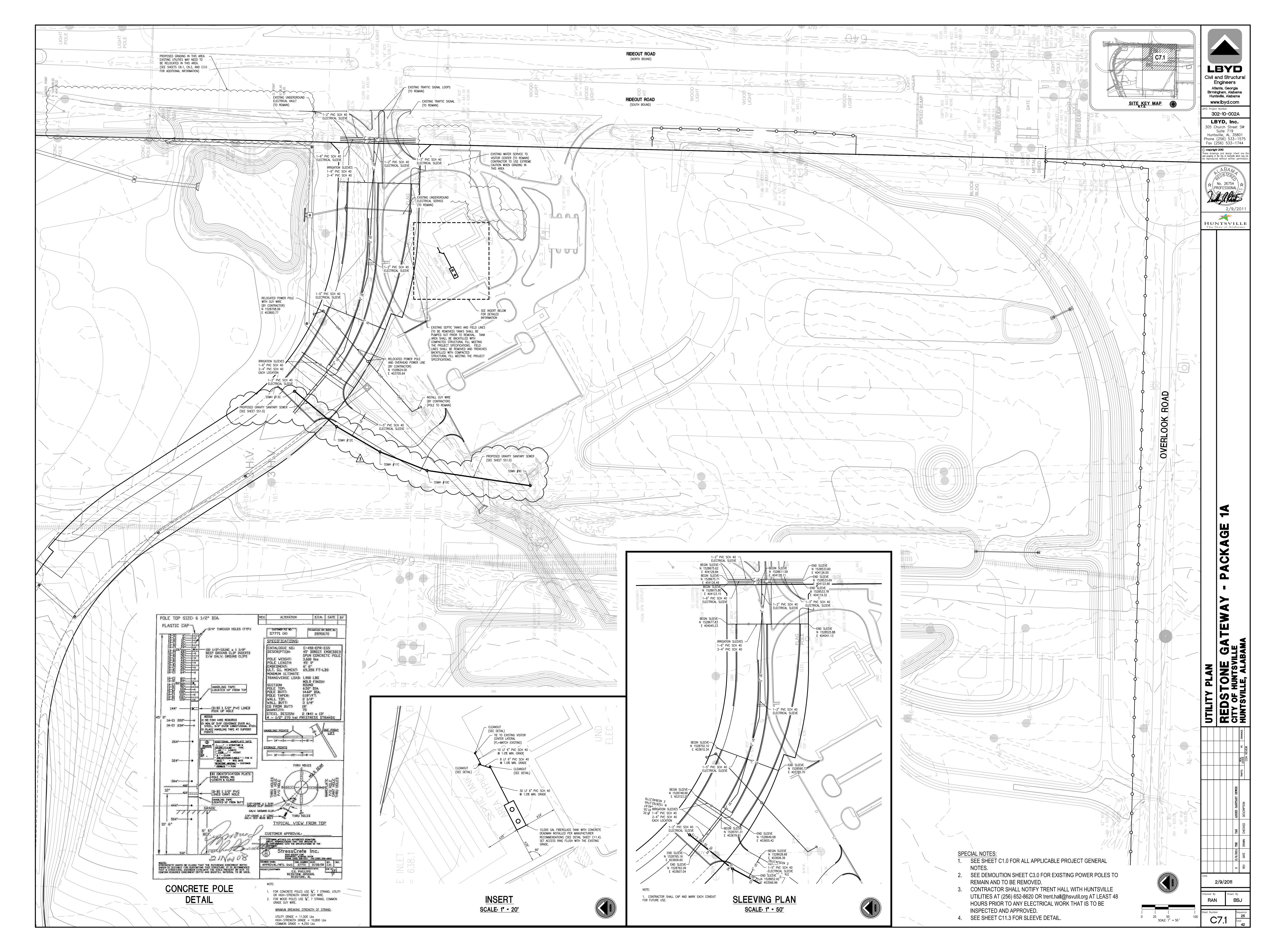
\PROFESSIONAL/

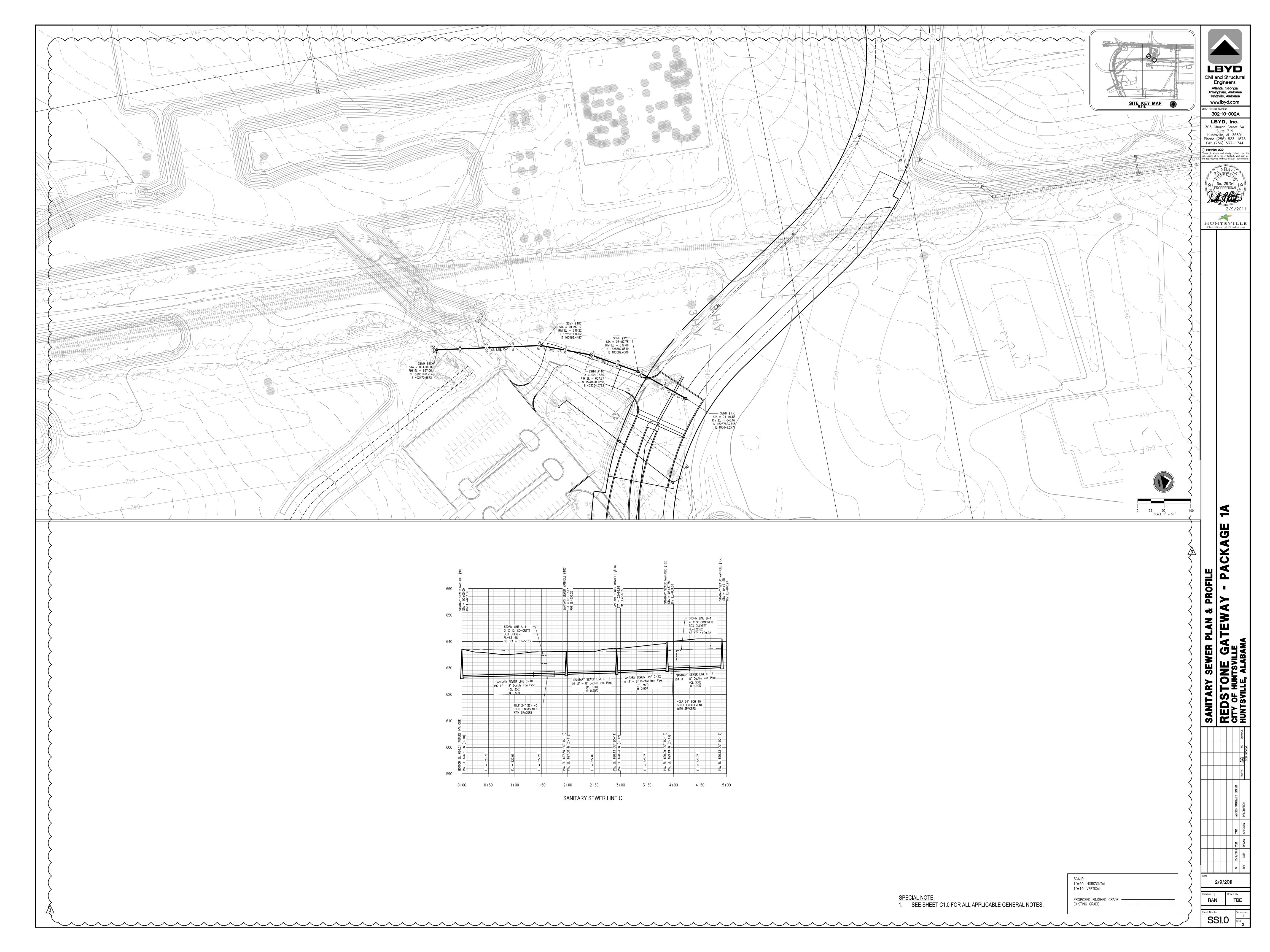
HUNTSVILLE

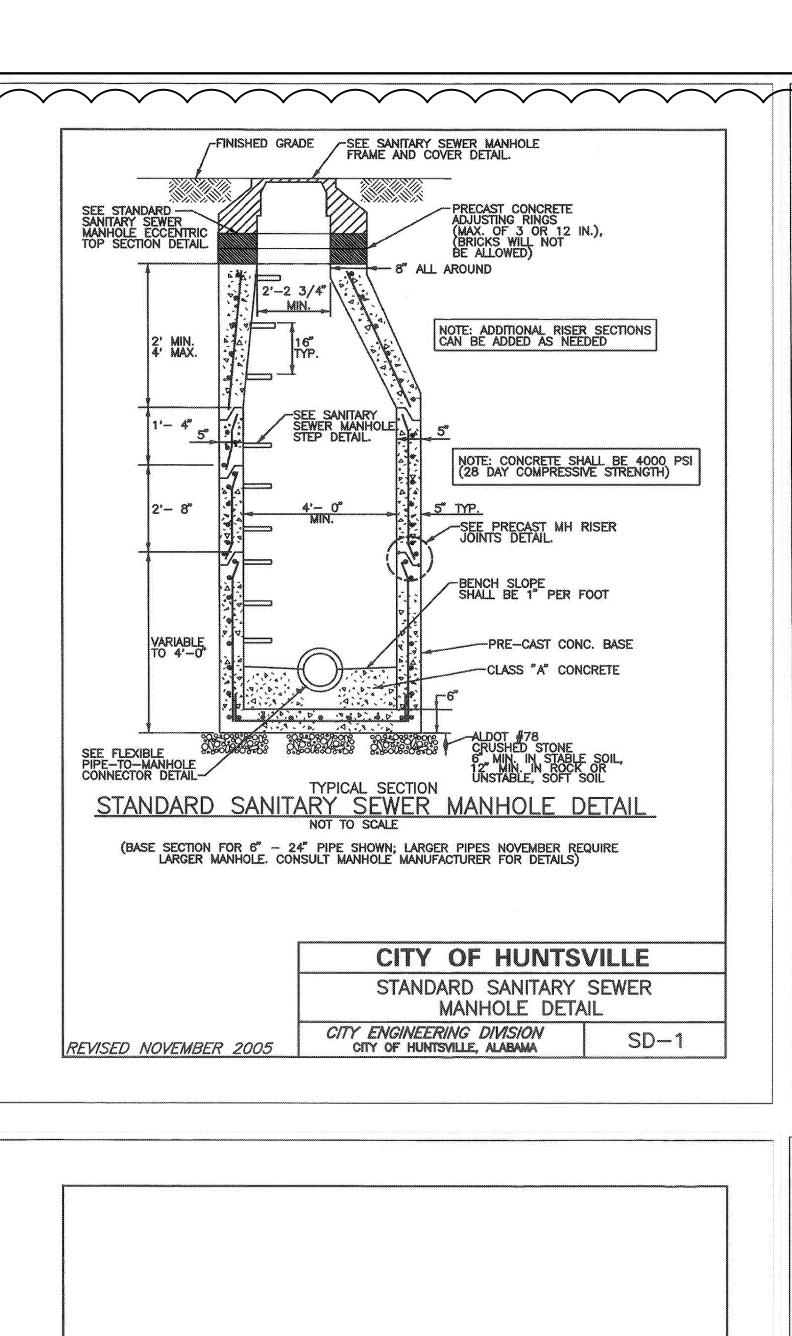
Phone (256) 533-1575

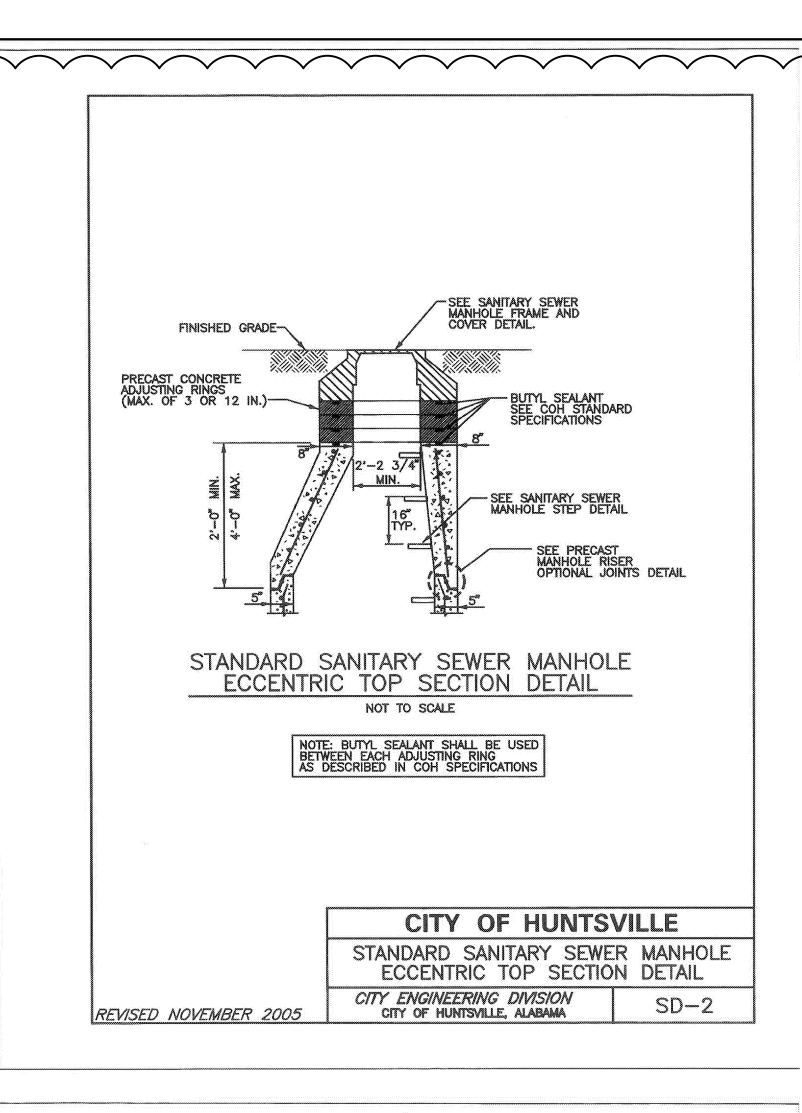
2/9/2011

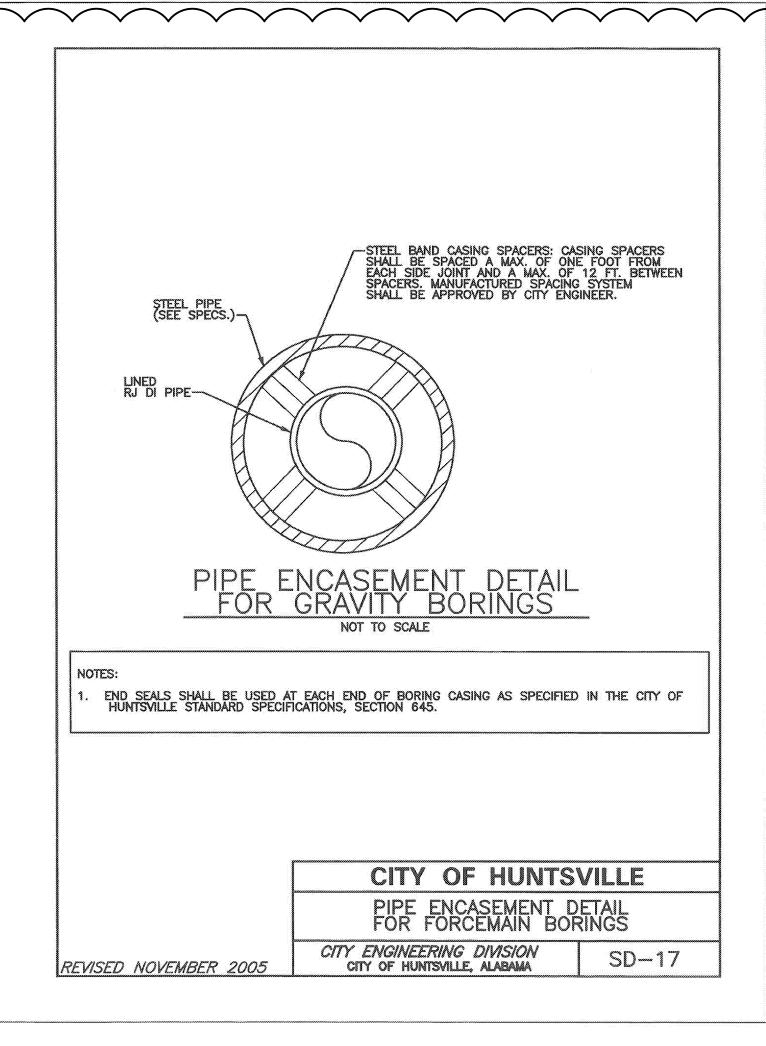
RAN

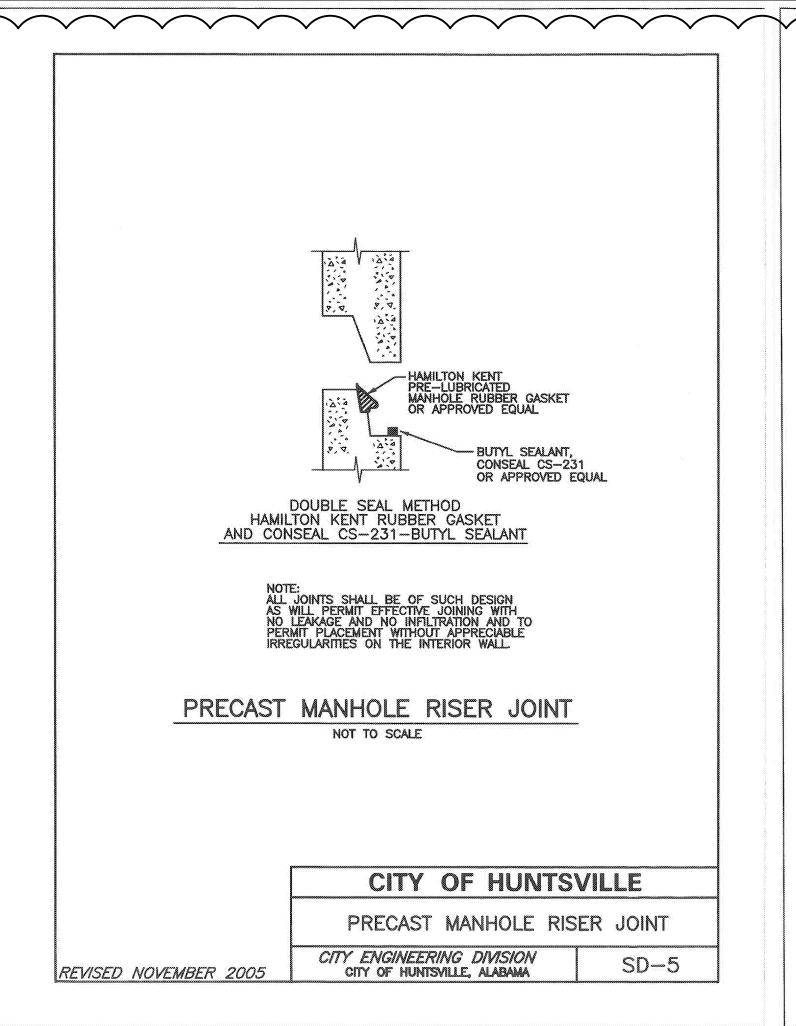


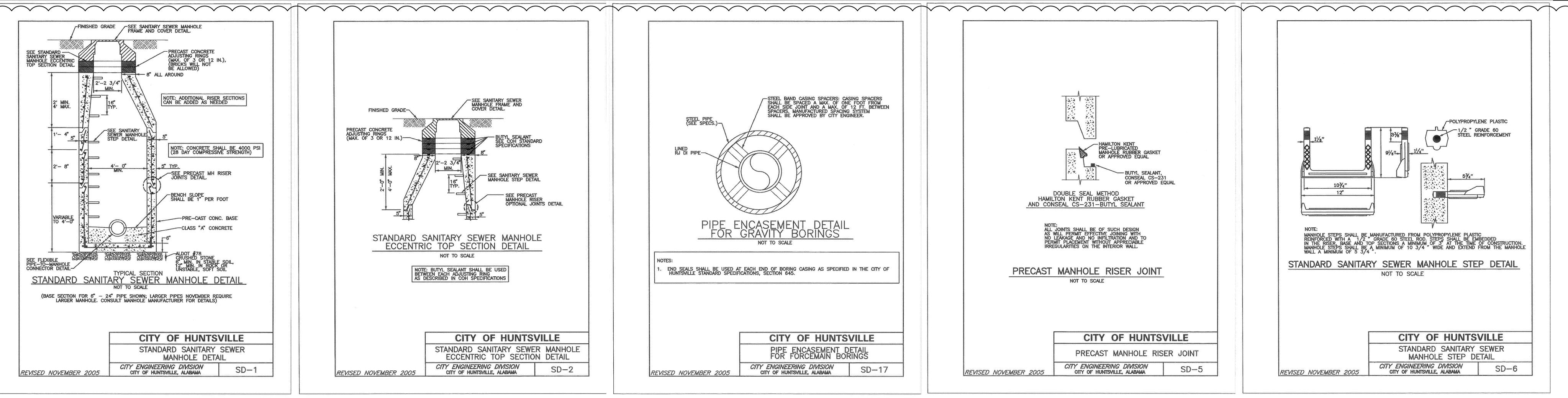


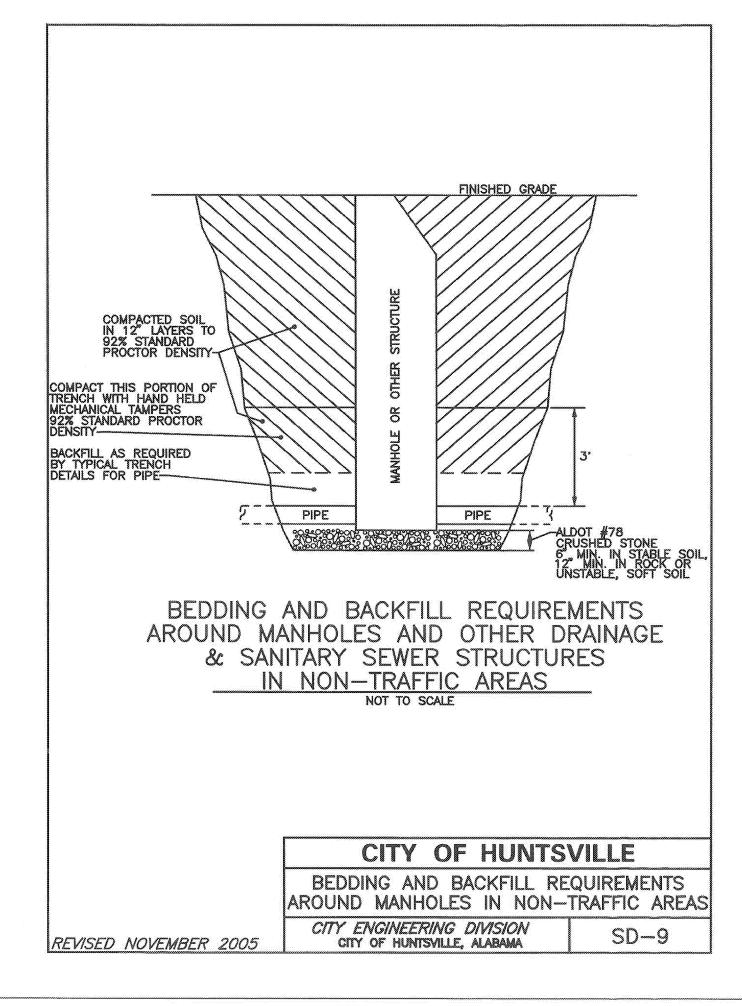


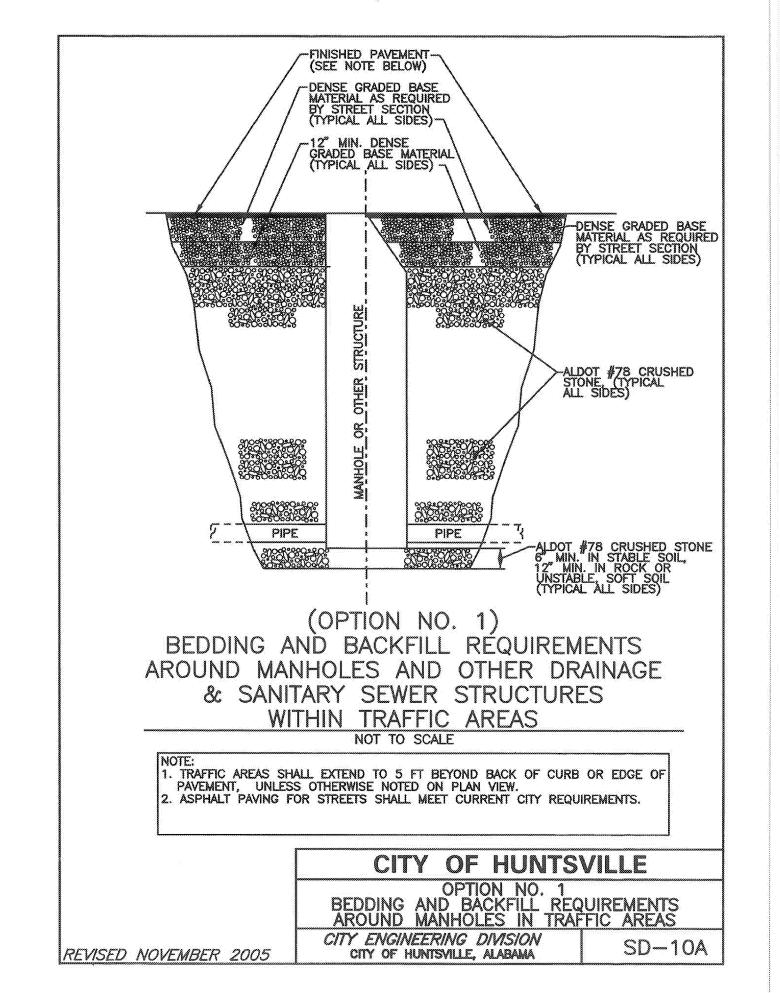


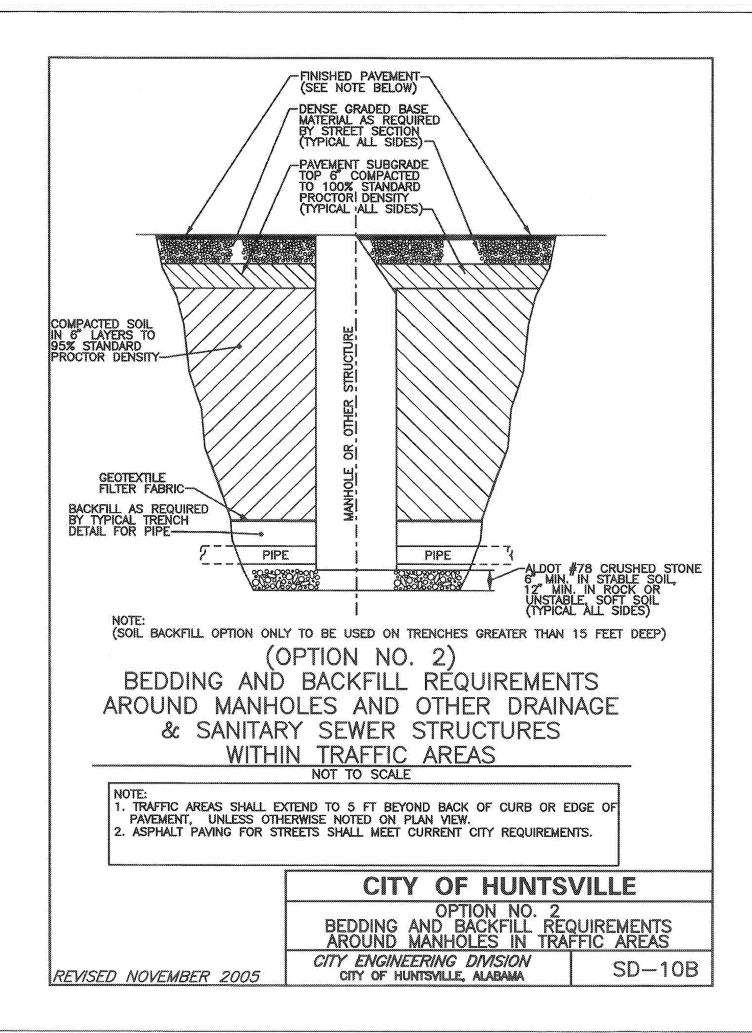


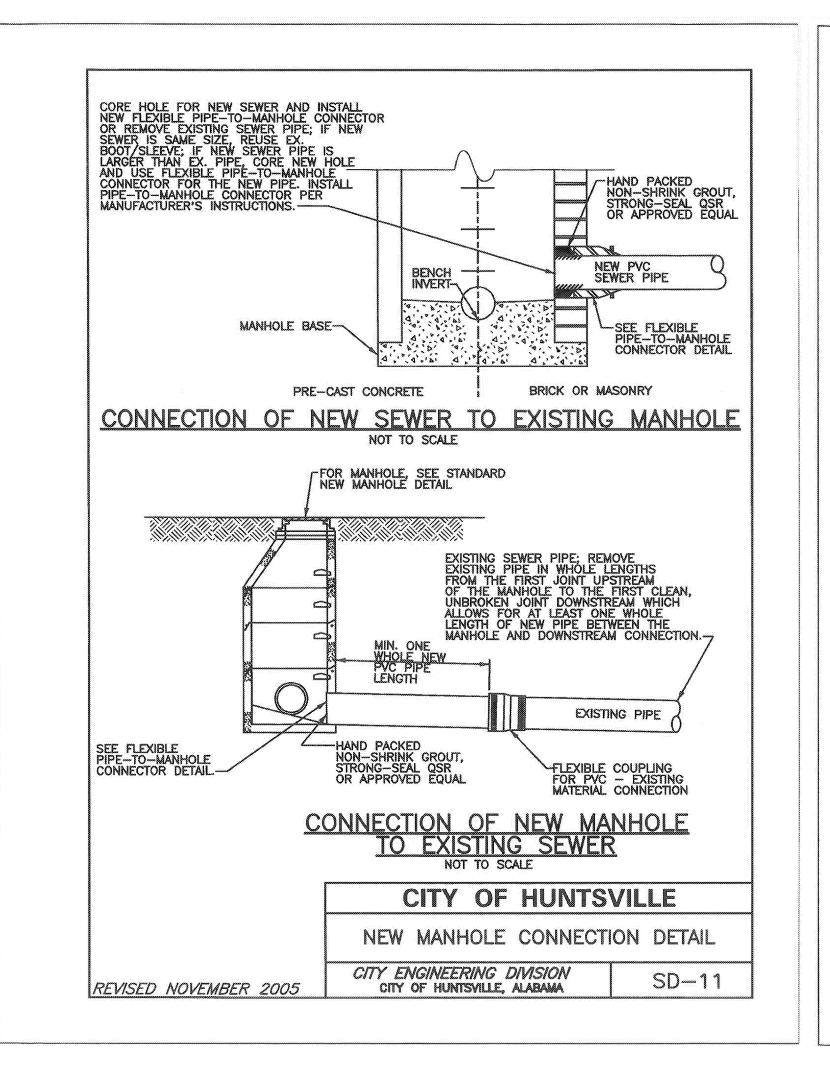


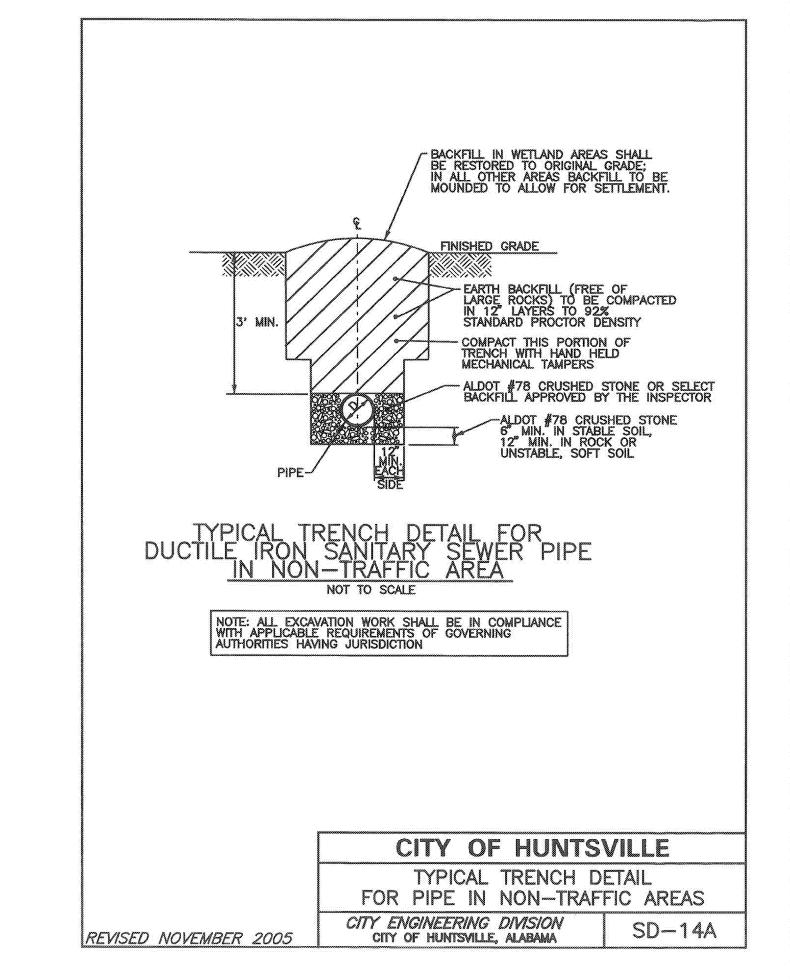


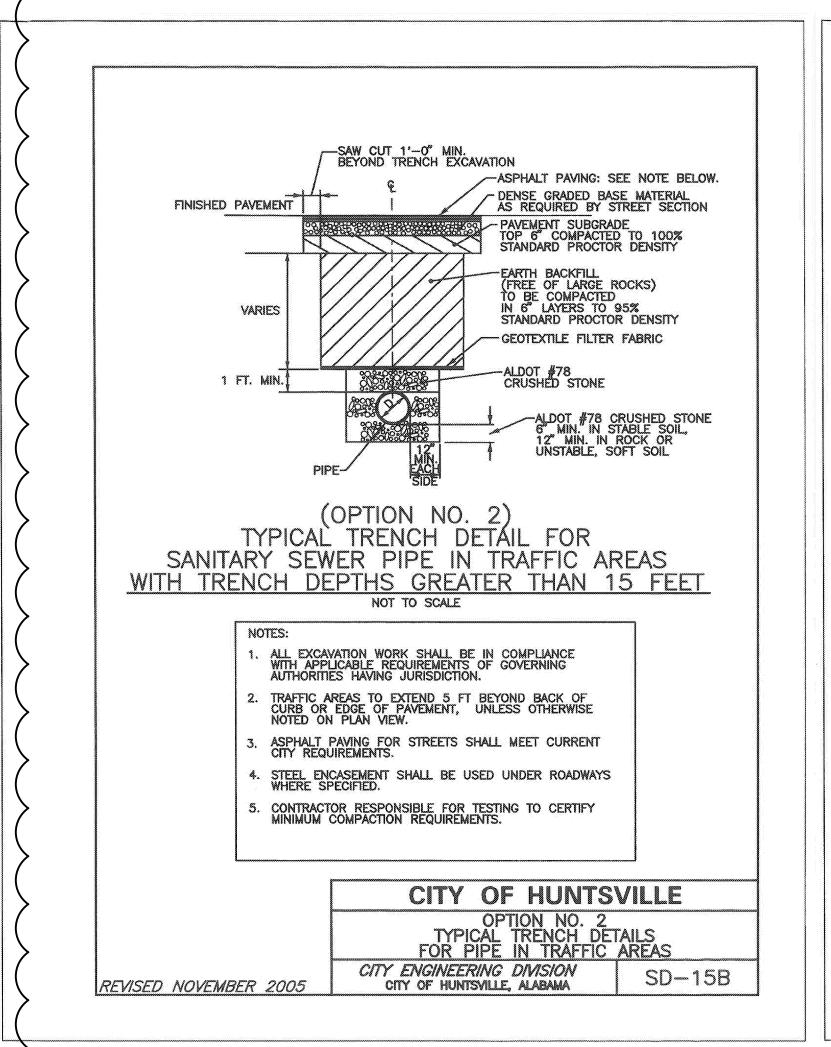


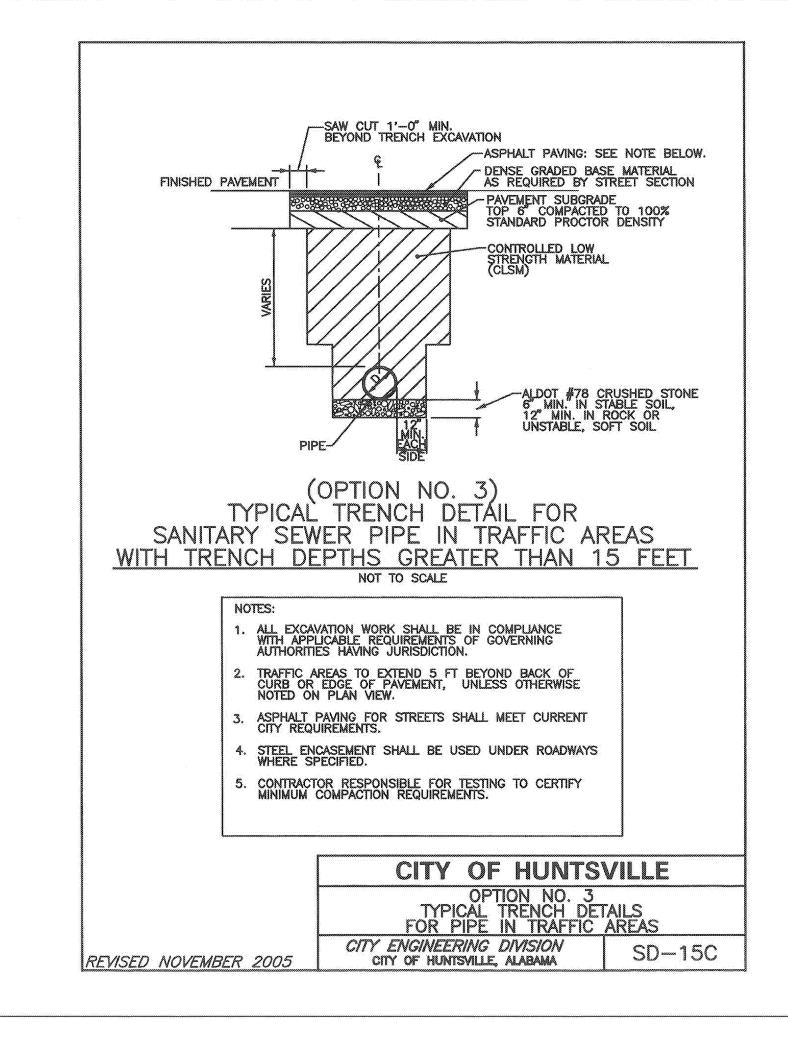


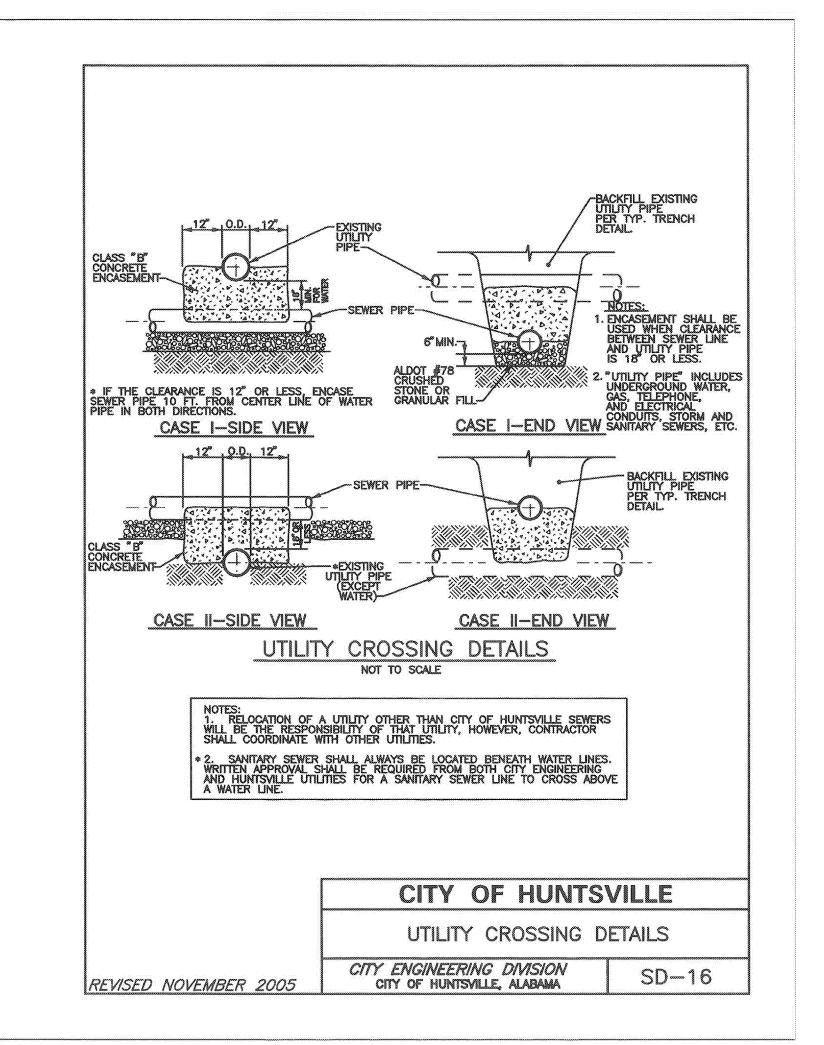


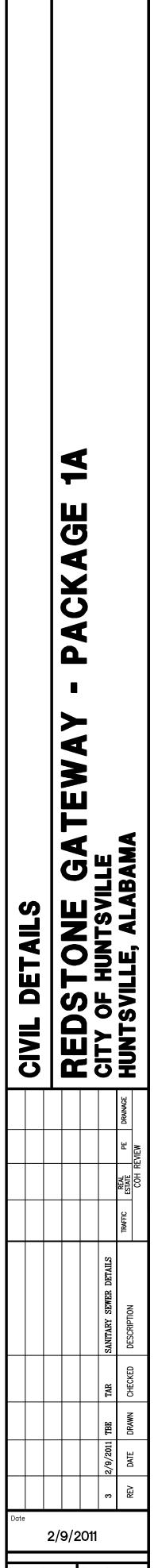












RAN

SS2.0 $\frac{2}{\text{Total}_3}$

LBYD

Civil and Structura Engineers Atlanta, Georgia Birmingham, Alabama

Huntsville, Alabama www.lbyd.com

302-10-002A

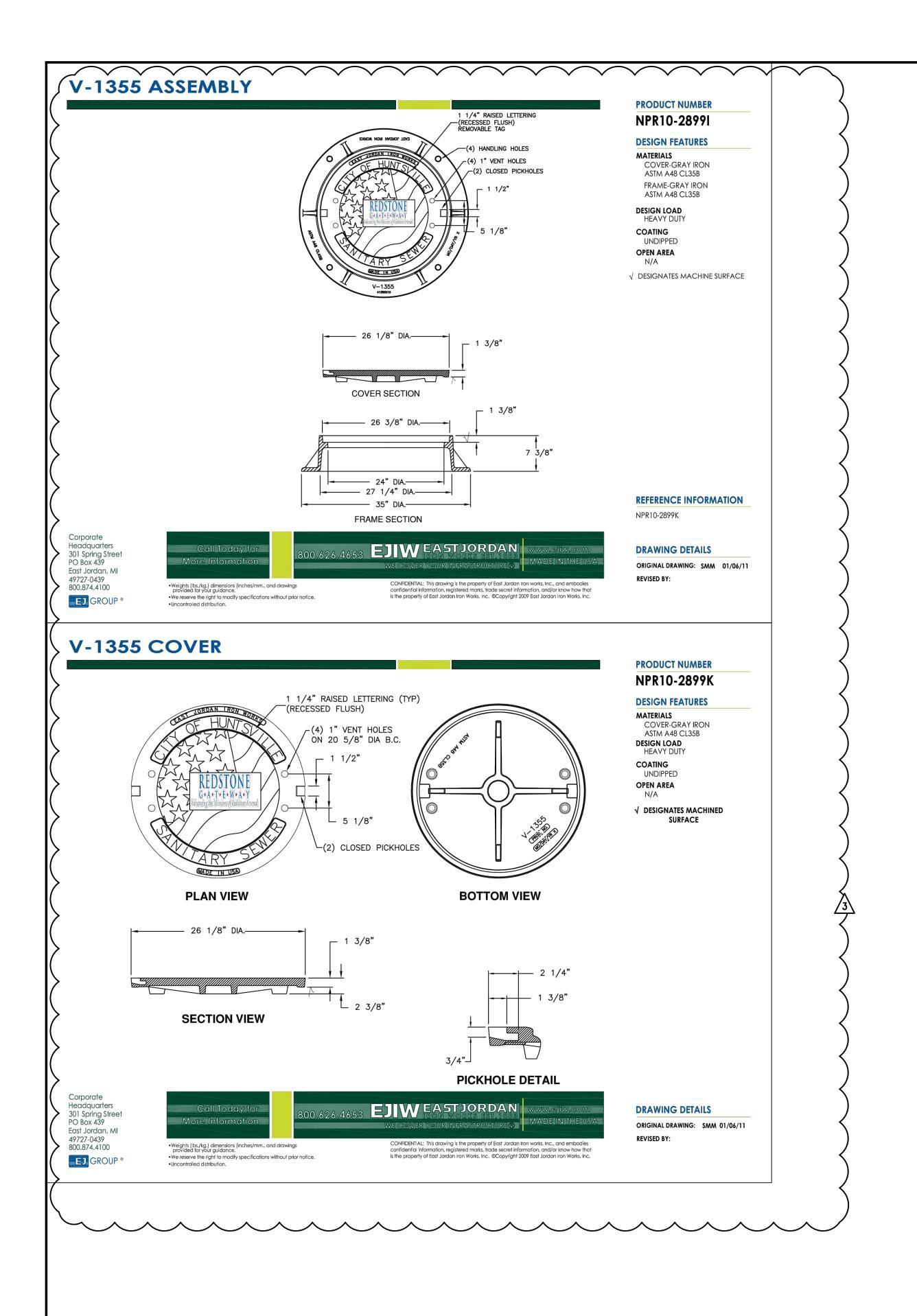
LBYD, Inc. 305 Church Street SW

Suite 719 Huntsville, AL 35801 Phone (256) 533-1575 Fax (256) 533-1744

These drawings and design intent are t sole property of the City of Huntsville which may n be reproduced without written permissio

HUNTSVILLE The Star of Alabama

opyright 2010



Civil and Structural
Engineers
Atlanta, Georgia
Birmingham, Alabama
Huntsville, Alabama
www.lbyd.com

LBYD Project Number
302-10-002A

LBYD, Inc.
305 Church Street SW
Suite 719
Huntsville, AL 35801
Phone (256) 533-1575
Fax (256) 533-1744

© copyright 2010

These drawings and design intent are the sole property of the City of Huntsville which may not be reproduced without written permission.

HUNTSVILLE

HUNTSVILLE
The Star of Alabama

REDSTONE GATEWAY - PACKAGE 1/CITY OF HUNTSVILLE

2/9/2011

Checked By Drawn By
RAN TBE

Sheet Number Seq